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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
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STAAS & HALSEY LLP SUITE 700 1201 NEW YORK AVENUE, N.W. WASHINGTON, DC 20005			EXAMINER POLTORAK, PIOTR	
			ART UNIT 2134	PAPER NUMBER
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**Please find below and/or attached an Office communication concerning this application or proceeding.**

The time period for reply, if any, is set in the attached communication.

**Office Action Summary**

Application No.

10/706,954

Applicant(s)

ASANO, OSAMU

Examiner

Peter Poltorak

Art Unit

2134

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --  
Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

**Status**

- 1) ☒ Responsive to communication(s) filed on 14 November 2003.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

**Disposition of Claims**

- 4) ☒ Claim(s) 1-18 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 1-18 is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_\_ is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

**Application Papers**

- 9) ☒ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on \_\_\_\_\_ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

**Priority under 35 U.S.C. § 119**

- 12) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☒ All b) ☐ Some \* c) ☐ None of:
1. ☒ Certified copies of the priority documents have been received.
  2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
  3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- \* See the attached detailed Office action for a list of the certified copies not received.

**Attachment(s)**

- 1) ☒ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☐ Information Disclosure Statement(s) (PTO/SB/08)  
Paper No(s)/Mail Date \_\_\_\_\_
- 4) ☐ Interview Summary (PTO-413)  
Paper No(s)/Mail Date. \_\_\_\_\_
- 5) ☐ Notice of Informal Patent Application
- 6) ☐ Other: \_\_\_\_\_

### **DETAILED ACTION**

1. Claims 1-18 have been examined.

#### ***Priority***

2. Acknowledgment is made of applicant's claim for foreign priority based on an application filed in Japan on November 19, 2002.

#### ***Specification***

3. The abstract is objected to. The abstract should be in narrative form and generally limited to a single paragraph within the range of 50 to 150 words. The abstract should not exceed \*>15< lines of text. Abstracts exceeding \*>15< lines of text should be checked to see that it does not exceed 150 words in length since the space provided for the abstract on the computer tape by the printer is limited. Correction is required. See MPEP § 608.01(b).

#### ***Claim Objections***

4. Claim 4 is objected because the phrase "preventing unit disables to reception of new data" is not grammatically correct. Appropriate correction is required.
5. Claims 1-7 and 9-11 are objected because the terms should be used consistently. In particular "the detecting unit" (e.g. claims 2-7, 9-11) should not follow the term "a virus detecting unit". For purpose of clarity "the virus detecting unit" (as in claims 8 and 12, for example) should be used.

Claims 8 and 12-14 are rejected by virtue of their dependence.

Appropriate correction is required.

#### ***Claim Rejections - 35 USC § 101***

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35 U.S.C. 101 reads as follows:

Whoever invents or discovers any new and useful process, machine, manufacture, or composition of matter, or any new and useful improvement thereof, may obtain a patent therefor, subject to the conditions and requirements of this title.

6. Claims 15-16 are rejected under 35 U.S.C. 101 because the claimed invention is directed to non-statutory subject matter. In addition to providing useful and tangible results, computer program must be embodied on computer readable media.

***Claim Rejections - 35 USC § 102 or 103***

The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

7. Claims 1, 4-5, 15 and 17 are rejected under 35 U.S.C. 102(b) as anticipated by or, in the alternative, under 35 U.S.C. 103(a) as being unpatentable over Yokoyama Masatoshi (Jap. Pub. No. 10307776), hereafter Masatoshi.

As per claims 1, 5, 15 and 17, Masatoshi discloses a device unit connected to plurality of communication devices (object 5, Fig. 1) comprising a first memory unit

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(PROM) storing virus pattern information; a second memory unit temporarily storing data received from any one of the communication devices (RAM); a virus detecting unit that determines whether the data temporarily stored in the second memory unit is infected with a virus or not based on the virus patterns stored in the first memory unit (control processor 305) (Masatoshi [0016-0017]).

Masatoshi transmitting to receiving-side equipment only data that is not virus infected is transmitted to receiving-side equipment, which clearly indicates invalidating infected data by a virus spreading preventing unit disabling transmission of the data outside the unit when the detecting unit determines that the data is infected with a virus.

The device unit disclosed by Masatoshi is a central location unit providing common connection to a multiple devices, and thus it reads on a hub. Furthermore, even if applicant was to argue some more restrictive definition of a hub, of the examiner points out that a name of a device would not affect the functionality of the Masatoshi's invention. Furthermore, hubs and other communication units are well known in the art of computing, and implementing Masatoshi's invention to other network devices (such as hubs) that connect multiple network nodes would have been an obvious variation given the benefit of relieving the receiving-side equipment from checking whether the received data is safe (e.g. Masatoshi [0018]).

8. As per claim 4, preventing newly received data from a first communication device to the communication devices reads on disabling the reception to new data from a first communication device.

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9. Claims 2-3, 7-10, 12-14, 16 and 18 are rejected under 35 U.S.C. 103(a) as being unpatentable over Yokoyama Masatoshi (Jap. Pub. No. 10307776), hereafter Masatoshi in view of Libenzi (USPN 7117533) or alternatively in view of Kim (USPN 6701440).

Masatoshi's hub unit detecting data infected with a virus has been discussed supra.

10. As per claims 2, Masatoshi does not disclose a memory unit storing transmission addresses of the plurality of the communication devices and registering a transmission address of a communication device that transmitted the infected data.
11. Libenzi discloses a memory unit (Fig. 2 object 37) that stores addresses of the plurality of the communication devices and registering a transmission address of a communication device that transmitted the infected data (col. 2 lines 58-67). It would have been obvious to one of ordinary skill in the art at the time of applicant's invention to implement a memory unit that stores addresses of the plurality of the communication devices and registering a transmission address of a communication device that transmitted the infected data as taught by Libenzi given the benefit of avoiding a flood of infected message traffic.
12. Also Kim discloses a memory unit that stores addresses of the plurality of the communication devices and registering a transmission address of a communication device that transmitted the infected data (col. 6 lines 48-64). It would have been obvious to one of ordinary skill in the art at the time of applicant's invention to include a memory unit that stores addresses of the plurality of the communication devices and registering a transmission address of a communication device that

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transmitted the infected data as taught by Libenzi or Kim into Masatoshi's invention.

One of ordinary skill in the art would have been motivated to perform such a modification in order to ensure that the infected data is not forwarded to other recipients.

13. As per claim 16, any time that data (e.g. an address) is received and operated it inherently involves the process of registering data. Otherwise the data could not be accessed or retrieved.
14. As per claims 3, 7-9 implementation of Kim and Masatoshi's inventions would clearly prevent newly received data from a first communication device to the communication devices after determination that the first communication device is infected by a virus the data transmitted from the first communication devices is infected with a virus ("... infected messages are discarded ...", Libenzi, col. 2 lines 55-56, and "...blocking a sender's address results in all e-mail messages from the blocked sender to be automatically deleted ...", Kim, col. 6 lines 49-51, for example).
15. As per claim 10, it is clear that the above discussed data is received from a communication device and any data, including the newly received data, received from the device, found to be infected would be invalidated.
16. As per claims 13-14, the examiner points out that using a particular name for the entity (e.g. a gateway or a router) would not affect the functionality of the invention, especially since one of the functions of network devices such as gateway, router, hub etc. is to connect multiple devices.

17. As per claim 12, although Libenzi, Kim and Masatoshi do not explicitly disclose more than one protection device, such as discussed above hub, being connected in a cascade form, the examiner points out that connecting plurality of protection devices in a cascade mode is well known in the art of computer networking (e.g. Fig. 1, Smith USPN 7134142), and it would have been obvious to one of ordinary skill in the art at the time of applicant's invention to connect more than one protection device (in a cascade form) given the benefit of a multiple layer network protection.

Furthermore, Libenzi, Kim and Masatoshi do not explicitly discusses that in addition to a one of the network devices searching data within one database (e.g. said virus spreading preventing unit of a device determines whether or not a transmission address of a communication device, attached to data transmitted from the device, coincides with an address stored in the third memory unit in a first hub unit among the plurality of the hub units) searches other databases for additional data that would be used for additional data validation (e.g. if it determines that there is no coincidence between the two addresses it successively checks for the coincidence between the transmission address and addresses stored in the respective third memory units in the successive hub units), the examiner points out that searching additional databases for data that would be used for additional data validation is well known in the art of networking, including the art of computer security (e.g. searching/pulling for security updates, Smith USPN 7134142 for example), and implementing such a feature into Masatoshi in view of Libenzi or alternatively Kim's invention would have been obvious to one of ordinary skill in the art at the time of



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applicant's invention given the benefit of data validation against the most updated information. Applying the rules using the updated data (if it determines that there is a coincidence between two addresses it disables transmission of the data to a communication device) would have been implicit.

18. Claim 6 is rejected under 35 U.S.C. 103(a) as being unpatentable over Yokoyama Masatoshi (Jap. Pub. No. 10307776), hereafter Masatoshi in view of Togawa (U.S. Patent No. USPN 6240530).

Masoatoshi's hub unit detecting data infected with a virus has been discussed supra.

19. Masoatoshi does not disclose a display unit for notifying that data is infected with a virus if the detecting unit determines that the data is infected with a virus.

Togawa discloses a display unit for notifying that data is infected with a virus if the detecting unit determines that the data is infected with a virus (Fig. 3 object 7, col. 24 lines 37-43 and col. 23 lines 9-15, for example). It would have been obvious to one of ordinary skill in the art at the time of applicant's invention to incorporate the display unit as disclosed by Togawa into Masoatoshi's invention. One of ordinary skill in the art would have been motivated to perform such a modification in order to enable an operator to decide on a course of action.

20. Claim 11 is rejected under 35 U.S.C. 103(a) as being unpatentable over Yokoyama Masatoshi (Jap. Pub. No. 10307776), hereafter Masatoshi in view of Libenzi (USPN 7117533) or alternatively in view of Kim (USPN 6701440) and further in view of Togawa (U.S. Patent No. USPN 6240530).

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The limitation of claim 11 are substantially similar to the limitations of claim 6. Thus, claim 11 is rejected similar to claim 6.


### **Conclusion**

The prior art made of record and not relied upon is considered pertinent to applicant's disclosure: Spiegel (USPUB 2007/0083931).

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Peter Poltorak whose telephone number is (571) 272-3840. The examiner can normally be reached Monday through Thursday from 9:00 a.m. to 4:00 p.m. and alternate Fridays from 9:00 a.m. to 3:30 p.m.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Kambiz Zand can be reached on (571) 272-3811. The fax phone number for the organization where this application or proceeding is assigned is (571) 273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

  
6/5/07

  
KAMBIZ ZAND  
SUPERVISORY PATENT EXAMINER